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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,087	08/26/2003	Ramanan V. Chebiam	42P13235D2	4929

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EXAMINER

LAVILLA, MICHAEL E

ART UNIT PAPER NUMBER

1775

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/649,087	<b>Applicant(s)</b> CHEBIAM ET AL.	
	<b>Examiner</b> Michael La Villa	<b>Art Unit</b> 1775	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 05 June 2006.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 13, 15-17, 19, 20 and 32-36 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 13, 15-17, 19, 20, and 32-36 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All    b) ☐ Some \*    c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

U.S. Patent and Trademark Office  
PTOL-326 (Rev. 7-05)

**Office Action Summary**

Part of Paper No./Mail Date 20060708

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 June 2006 has been entered.

### ***Claim Objections***

2. Claim 19 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding Claim 19, the claim broadens the subject matter of previous Claim 13, as it permits pM to be Co, which is outside the scope of what is claimed in Claim 13.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
4. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 13, 15-17, 19, 20, and 32-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Regarding Claim 13, it is unclear what is meant by the phrase, "wherein pM is a primary metal selected from at least one of Cu, Ag, Au, Pd, Pt, Ni, Rh, and Ir." It is unclear whether the entirety of pM is to consist of one or more of the listed elements. Should the claim read, "wherein pM is a primary metal consisting of at least one element selected from the group consisting of Cu, Ag, Au, Pd, Pt, Ni, Rh, and Ir"? If not, what criteria determine whether a material is suitable for pM? It is unclear what is meant by the phrase, "wherein sM is a secondary metal selected from zero to at least one of Cr, Mo, W, Mn, Tc, and Re." It is unclear whether the entirety of sM is to consist of one or more of the listed elements. It is unclear whether the specification of "zero" in the phrase necessarily implies that  $x=0$ . It is unclear whether x can obtain zero. It is unclear whether "about 0.0" does not encompass exactly zero, but sM need not be one of the listed elements. Should the claim read, "wherein sM is a secondary metal consisting of at least one element selected from the group consisting of Cr, Mo, W, Mn, Tc, and Re," and read, "x has a range from 0.0 to about 0.2"? If not, what criteria determine whether a material is suitable for sM? Analogous rejections apply to Claim 32, with respect to pM and sM, and to Claim 35, with respect to sM.
7. Regarding Claims 19, 33, and 36, it is unclear whether the recitation of sM elements or of "sM" itself necessarily requires the presence of such elements in the composition in a finite amount. For example, in Claim 19, the composition "pMCrB" is listed as a possible composition. For this composition, is there a requirement that the amount of Cr be finite, i.e., greater than zero?

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8. Regarding Claim 20, it is unclear what is meant by the phrase "is a metal combination selected from "nickel-silver, . . . ." It is unclear whether other primary metal elements listed in Claim 13 are necessarily excluded.
9. Regarding Claims 15, 17, 19 and 34, it is unclear whether the phrase "wherein pM comprises at least one of" should be interpreted to mean that pM cannot comprise other listed pM elements in the respective previous claims. For example, with respect to Claim 15, does the claim require that pM can be at least one of Cu, Ag, and Au, but not any of Pd, Pt, Ni, Rh, and Ir?

***Response to Amendment***

10. In view of applicant's amendments and arguments, all rejections set forth in the Office Action mailed on 10 March 2006 are overcome and therefore are withdrawn.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael La Villa  
8 June 2006



MICHAEL E. LAVILLA PH.D.  
PRIMARY EXAMINER